

# A LIST OF THE ANTS (HYMENOPTERA: FORMICIDAE) OF THE EDWIN S. GEORGE RESERVE, LIVINGSTON COUNTY, MICHIGAN

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The Edwin S. George Reserve is located in southern Michigan. Here live a very large number of species of ants for an area this far north and consisting of only two square miles. This large number of species is apparently owing to the variety of terrain which has resulted from glacial activity.

High parts tend to be sandy and dry. They are covered with dense to sparse oak-hickory woods, with prairie-like fields supporting a heavy covering of grasses and forbs, or being so dry that plants are spaced. Low areas are filled with deep woods such as those in glacial kettle holes, are occupied by moist meadows where ground water is sometimes near the surface, or they are covered by marshes of reeds and cat-tails, by swamps of tamarack and poison sumac or by *Chamaedaphne*-*Sphagnum* bogs.

Characteristic ants are found in these varied habitats. The western thatching ant, *Formica obscuripes* builds its mounds on the high, dry fields, while *Formica ulkei* mounds are found only near water. *Lasius pallitarsis*, common farther north, is restricted to swamps and their edges. *Myrmica incompleta* has been collected only on a floating bog, and *Dorymyrmex pyramicus* is known only from a gravelly, barren slope.

Twenty-four summers of field work on the ant life of the Reserve have yielded discoveries which might not have been made under less exhaustive efforts. The workerless social parasites of *Formica obscuripes* were first seen while flights of *obscuripes* were under observation, and the workerless parasites of *Monomorium minimum* were dug out during a population study of *minimum*.

## SPECIES OF ANTS KNOWN TO OCCUR ON THE EDWIN S. GEORGE RESERVE<sup>2</sup>

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| 1. <i>Amblyopone pallipes</i> (Haldeman)       | 18. <i>Aphaenogaster rudis</i> Emery   |
| 2. <i>Proceratium silaceum</i> Roger           | 19. <i>Aphaenogaster tennesseensis</i> (Mayr)  |
| 3. <i>Ponera pennsylvanica</i> Buckley         | 20. <i>Aphaenogaster treatae</i> Forel   |
| 4. <i>Myrmica americana</i> Weber <sup>3</sup> | 21. <i>Crematogaster lineolata</i> (Say)   |
| 5. <i>Myrmica incompleta</i> Provancher        | 22. <i>Crematogaster cerasi</i> (Fitch)  |
| 6. <i>Myrmica discontinua</i> Weber            | 23. <i>Monomorium minimum</i> (Buckley)  |
| 7. <i>Myrmica emeryana</i> Forel               | 24. <i>Monomorium</i> —undescribed workerless<br>parasite of <i>Monomorium minimum</i> |
| 8. <i>Myrmica fracticornis</i> Emery           | 25. <i>Solenopsis molesta</i> Say  |
| 9. <i>Myrmica monticola</i> Wheeler            | 26. <i>Myrmecina americana</i> Emery   |
| 10. <i>Myrmica spatulata</i> M. R. Smith       | 27. <i>Leptothorax ambiguus</i> Emery  |
| 11. <i>Myrmica pinatorum</i> Wheeler           | 28. <i>Leptothorax curvispinosus</i> Mayr  |
| 12. <i>Myrmica punctiventris</i> Roger         | 29. <i>Leptothorax longispinosus</i> Roger   |
| 13. <i>Stenamma brevicorne</i> (Mayr)          | 30. <i>Leptothorax schaumii</i> Roger  |
| 14. <i>Stenamma diecki</i> Emery               | 31. <i>Leptothorax texanus</i> Wheeler   |
| 15. <i>Stenamma impar</i> Forel                | 32. <i>Leptothorax muscorum</i> (Nylander)   |
| 16. <i>Stenamma schmitti</i> Wheeler           | 33. <i>Leptothorax duloticus</i> L. G. Wesson  |
| 17. <i>Aphaenogaster fulva</i> Roger           |  |

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<sup>2</sup>The ant names in this list follow Creighton (1950) except where more recent papers have been available. These studies and the genus or species involved are *Amblyopone* (Brown, 1960); *Ponera pennsylvanica* (Taylor, 1967); *Crematogaster* (Buren, 1958); *Leptothorax muscorum* (Brown, 1955); *Smithistruma* (Brown, 1953); *Lasius* (Wilson, 1955); *Acanthomyops* (Wing, 1968); *Formica* (sanguinea group) (Buren, 1968); *Formica* (fusca group) (Francoeur, 1973).

<sup>3</sup>All of the species of *Myrmica* have been verified using the old classification. André Francoeur is beginning a much needed revision of the genus. When this is completed any of the names may be changed.

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34. *Leptothorax hirticornis* Emery
35. *Smithistruma pergandei* (Emery)
36. *Smithistruma pulchella* (Emery)
37. *Dolichoderus mariae* Forel
38. *Dolichoderus plagiatus* (Mayr)
39. *Dolichoderus pustulatus* Mayr
40. *Dolichoderus taschenbergi* (Mayr)
41. *Dorymyrmex* (= *Conomyrma*?) *pyramicus* (Roger)<sup>4</sup>
42. *Tapinoma sessile* (Say)
43. *Brachymyrmex depilis* Emery
44. *Camponotus americanus* Mayr
45. *Camponotus pennsylvanicus* (DeGeer)
46. *Camponotus noveboracensis* (Fitch)
47. *Camponotus caryae* (Fitch)
48. *Camponotus nearcticus* Emery
49. *Paratrechina parvula* (Mayr)
50. *Prenolepis imparis* (Say)
51. *Lasius pallitarsis* (Provancher)
52. *Lasius alienus* (Foerster)
53. *Lasius neoniger* Emery
54. *Lasius flavus* (Fabricius)
55. *Lasius nearcticus* Wheeler
56. *Lasius umbratus* (Nylander)
57. *Lasius speculiventris* Emery
58. *Lasius minutus* Emery
59. *Acanthomyops claviger* (Roger)
60. *Acanthomyops interjectus* (Mayr)
61. *Acanthomyops latipes* (Walsh)
62. *Acanthomyops murphyi* (Forel)
63. *Acanthomyops subglaber* (Emery)
64. *Formica lasioides* Emery
65. *Formica neogagates* Emery
66. *Formica vincularis* Wheeler<sup>5</sup>
67. *Formica pergandei* Emery
68. *Formica subintegra* Emery
69. *Formica rubicunda* Emery
70. *Formica subnuda* Emery
71. *Formica creightoni* Buren
72. *Formica*—undescribed sanguinea group
73. *Formica dakotensis* Emery
74. *Formica obscuripes* Forel
75. *Formica obscuriventris* Mayr
76. *Formica nepticula* Wheeler
77. *Formica* sp.? (microgyna group)
78. *Formica* (microgyna group) undescribed workless parasite of *Formica obscuripes*
79. *Formica exsectoides* Forel
80. *Formica ulkei* Emery
81. *Formica glacialis* Wheeler
82. *Formica subsericea* Say
83. *Formica fusca* Linnaeus (*subaenescens* type)
84. *Formica neorufibarbis* Emery
85. *Formica pallidefulva nitidiventris* Emery
86. *Formica schaufussi* Mayr
87. *Polyergus lucidus* Mayr

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<sup>4</sup>When the genus *Dorymyrmex* is revised, this may be an incorrect identification.

<sup>5</sup>Although Creighton (1950) placed *Formica vincularis* Wheeler in synonymy, it seems to be a good species.